Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of	)	
	)	
Inquiry Regarding Carrier Current	)	ET Docket No. 03-104
Systems, including Broadband over	)	
Power Line Systems	)	
	)	

Comments of Paul F. Alexander

Date: July 6, 2003

Background to Comments

I have participated in a Broadband over Power Line (BPL) technology trial (as a consumer) at my home in Potomac, Maryland since December, 2002. I am an FCC licensed Amateur Radio Operator and also hold an FCC General Radiotelephone Operator License. The following comments in response to the present Notice of Inquiry are based on my observations of the impact of BPL on high frequency (3 – 30 MHz) signal reception at my home.

Comments

1. A survey of the HF radio energy radiated or coupled from the BPL trial system into my horizontal dipole antenna seems to indicate that the RF energy generated and used by the BPL system is not uniformly distributed in power across the HF spectrum. At some frequencies, there is no detectable change in my suburban noise floor due to the BPL system. At other frequencies, clearly "harmful interference" to HF signal reception is present.

2. Interference due to BPL is widely observed in the various HF international shortwave broadcast bands. While the interference is only an annoying and continuing series of pops when listening to stronger signals of international broadcasters, weaker signals are often rendered useless by the BPL interference.

3. BPL-generated interference to reception of National Institute of Standards and Technology (NIST) time and frequency broadcasts from stations WWV & WWVH (and to Canadian time signal station CHU) is clearly audible.

4. Within the HF amateur radio bands, interference due to the BPL system installed in my home is barely audible above my local noise floor, with one exception. The relatively recent amateur radio allocations in the 5 MHz band are moderately to severely interfered with by the BPL system.

5. Any future FCC authorization of commercial BPL service should mandate that all related RF emissions (both intentional and unintentional) minimize impact on US amateur radio frequency allocations.

6. Susceptibility of BPL systems to transmissions from licensed amateur radio stations needs to be studied.

7. The FCC should encourage power utilities to use their rights-of-way and universal residential connections to provide Internet access solutions (such as optical fiber) that can truly fulfill the promise of the Internet, rather than small incremental steps such as today's BPL trial.

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